IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (Canceled).

Claim 25 (New): A method of making an ion-conducting composite membrane, the method comprising:

(a) combining an electronically and ionically non-conducting polymer, or a blend of at least two such polymers, in solution or in the molten state with low melting point salt; and then

(b) combining the product obtained from step (a) with hydrolysable organic precursor of silica; and then

(c) combining the product of step (b) with compatible organic solvent solution of heteropolyacid; and then

(d) casting, from the product of step (c), a membrane as a film, preferably a thin film.

Claim 26 (New): The method of claim 25, further comprising casting said membrane on an inert support.

Claim 27 (New): The method of claim 25, further comprising preparing a said blend of two electronically and ionically non-conducting polymers by dissolving each of the polymers separately in common solvent and then mixing the two solutions in such a way as to obtain homogeneous solution of polymer blend.

Claim 28 (New): The method of claim 25, wherein the step (a) further comprises incremental addition of low melting point salt into said polymer solution or melt in such a way as to obtain a homogeneous mixture.

Claim 29 (New): The method of claim 25, wherein the step (b) further comprises incremental addition to the product of step (a) of hydrolysable precursor of silica in such a way as to obtain a homogeneous mixture.

Claim 30 (New): The method of claim 25, wherein the hydrolysable precursor of silica is added in liquid form.

Claim 31 (New): The method of claim 25, wherein the step (c) further comprises incremental addition to the product of step (b) of said heteropolyacid solution in such a way as to obtain a homogeneous liquid solution.

Claim 32 (New): The method of claim 25, wherein the step (d) further comprises the use of a moving blade film making machine.

Claim 33 (New): The method of claim 25, wherein the step (d) further comprises casting said films with a thickness between 5 and 500 micrometers, preferably on a smooth surface.

Claim 34 (New): The method of claim 25, wherein the or each polymer is selected from the group consisting of; polysulfone (PS), polyethersulfone (PES), polyphenylsulfone (PPS), polyvinylidenedifluoride (PVdF) or polyimide (PI), and mixtures thereof.

Claim 35 (New): The method of claim 25, wherein said low melting point salt is water insoluble.

Claim 36 (New): The method of claim 35, wherein said water insoluble low melting point salt is selected from the families of imidazolium and pyridinium salts.

Claim 37 (New): The method of claim 36, wherein the low melting point salt selected from said families has a melting point close to room temperature, for example 298 K.

Claim 38 (New): The method of claim 25, wherein the hydrolysable organic precursor of silica is selected from the family of alkoxysilanes.

Claim 39 (New): The method of claim 25, wherein the heteropolyacid is selected from the family of 12-heteropolyacids.

Claim 40 (New): An ion-conducting composite membrane comprising ion-conducting channels and a polymer matrix containing silica, low melting point salt and Heteropolyacid (HPA).

Claim 41 (New): The ion-conducting composite membrane according to claim 40, wherein said ion-conducting channels comprise nano-scale ion-conducting channels.

Claim 42 (New): The ion-conducting composite membrane according to claim 40, having a thickness between 5 and 500 micrometers.

Claim 43 (New): The ion-conducting composite membrane according to claim 40, wherein the or each polymer comprises a member of the group consisting of; polysulfone (PS), polyethersulfone (PES), polyphenylsulfone (PPS), polyvinylidenedifluoride (PVdF) or polyimide (PI), and mixtures thereof.

Claim 44 (New): The ion-conducting composite membrane according to claim 40, wherein said low melting point salt comprises a water insoluble low melting point salt, said water insoluble low melting salt preferably comprising a member of the families of imidazolium and pyridinium salts and also preferably having a melting point close to room temperature, for example 298 K.

Claim 45 (New): The ion-conducting composite membrane according to claim 40, wherein the hydrolysable organic precursor of silica comprises a member of the family of alkoxysilanes.

Claim 46 (New): The ion-conducting composite membrane according to claim 40, wherein the heteropolyacid comprises a member of the family of 12-heteropolyacids.

Claim 47 (New): A fuel cell comprising an ion-conducting composite membrane, said membrane comprising ion-conducting channels and a polymer matrix containing silica, low melting point salt and Heteropolyacid (HPA).

Claim 48 (New): The fuel cell according to claim 47, wherein said ion-conducting composite membrane is a proton exchange membrane in the fuel cell.